

PRELIMINARY REPORT ON THE ARCHITECTURE OF  
PAR FORCE GREAT HOUSE, REEF BAY,  
VIRGIN ISLANDS NATIONAL PARK  
AS REVEALED BY ARCHEOLOGICAL TESTING

by

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### MANAGEMENT SUMMARY

Between August 2 and August 12, 1988, the Southeast Archeological Center conducted test excavations around the foundations of the Par Force Great House at Reef Bay in the Virgin Islands National Park. The primary purpose of these excavations was to provide information useful to the Historic Architecture Division for planning appropriate measures for stabilizing and restoring the structure. Five 1 x 1 meter test units were excavated both inside and outside of the Great House, the west side of the Great House was mapped in some detail, and physical remains now in ruins were professionally observed and interpretations of form and function were formulated.

These investigations seem to indicate two different periods of construction at Par Force Great House. While the detailed analyses of the artifactual remains have not yet been conducted to confirm or deny these assumptions, it is assumed that these represent the two historically recorded rebuildings of the Great House, one in the eighteenth century and one in the nineteenth century.

The eighteenth century structure appears to have adequate foundation tying into bedrock, while the

nineteenth century rebuilding appears to be primarily on fill material composed of sand, loose rocks, and a loamy clay. These materials exhibit varying degrees of compaction from loose to very compact. The result has been that the nineteenth century addition has settled more than the eighteenth century structure. The building is cracking, and the west wall has leaned out of plumb. The primary cracks in the south wall occur at the place that the evidence inside the Great House would indicate a change in the nature of the structure.

Some of the cracks inside of the house appear to be superficial damage caused by roots from the vegetation that was allowed to grow on the porch areas over the past 20 or so years. Other damage appears to have resulted from attempts to keep the west wall from continuing to settle and lean out of plumb by tying it to the central walls of the building with iron rods and turn buckles. The forces applied were greater than the structural integrity of the stone walls and soft lime mortar could withstand. The result was that the interior walls were damaged when they could no longer stand the strain of the settlement of the outer walls, and the iron rods pulled loose. This settlement has probably been accelerated in the past 20 years by loss of the integrity of the roof which allowed increased

amounts of moisture to accumulate in the area of the weakened west wall. Further the accumulation of moisture was exacerbated by two other factors: the accumulation of vegetation and soil debris that has changed the elevations of the surrounding landscape, and the blockage and breakdown of a series of scuppers in the retaining wall which prevented run-off from occurring as it did originally.

In addition to the information on the architecture from these excavations, a quantity of artifactual material was recovered. Analyses of these data should provide more accurate information that will allow the identification of discrete activities associated with construction and occupation of the Great House.

Additional archeological work should be accomplished in conjunction with the stabilization and restoration activities planned for the Great House. For example, work should be done in the yards to establish historic grades and aid in grading the area appropriate to the historic scene. Also, discrete activities within the yards may have left activity areas that will lead to a better understanding of the eighteenth and nineteenth century lifeways of upper class settlers in a colonial area. The proximity of the servants quarters and

kitchen may give other activities and points of view. Much of the accumulated debris in the Great House is collapsed roof which was made of a double layer of brick over a wooden support structure. Material that may have been on the roof as a distinct activity area, the methodology and techniques of construction, and the fact that these deposits overlie and seal material that was in the house and basement make this debris an important archeological deposit that should be removed with archeological controls and records in order to preserve as much as possible of the information about these activity areas (Figure 2).

Compliance with cultural resource preservation laws should address the need for archeological excavations in advance of construction and site preparation, and archeological observation and monitoring during any clean-up activities.

## Introduction

On July 19, 1988, Archeologist Roy W. Reaves, III, of the Southeast Archeological Center, accompanied Mr. Rene Cote, Historical Architect, from the Historic Architecture Division; Mr. Todd Ruttenbeck, Structural Engineer under contract; and Mr. John Miller, Resource Management Specialist from Virgin Islands National Park, to look at the Par Force Great House at Reef Bay. Upon assessing the nature of the remains, Archeologist Reaves advised that much of the debris in the Great House was archeological deposits and should be subjected to archeological testing and recording prior to removal. Messrs. Cote and Ruttenbeck expressed the need to have some archeological investigations done around the foundations to determine the nature of the foundations and possibly explain what was causing the walls to crack and fall apart, particularly on the southwest corner.

Mr. Reaves was conducting other archeological investigations in the park and on August 1, 1988, was contacted by Mr. Miller to request that the Southeast Archeological Center adjust priorities in order to do testing at Par Force Great House to answer questions about the nature of the foundation. Mr. Reaves contacted Mr. Cote and was told that the Historic

Architecture Division would like information about the subsurface deposits in several locations which he had shown to Mr. Miller. Mr. Miller would, in turn, show the archeologists. Of particular interest was information about the foundation, and information related to the drainage of the site. He expressed particular interest in the southwest corner of the Great House. He described an area in the basement of the Great House and requested that data be investigated that might explain the cracking in that area. He stated the intention of preparing an A & E contract to stabilize and clean up the Great House and requested the archeological information for a meeting to occur on August 18, 1988.

#### Investigations

On August 2, 1988, Archeology Technicians Wild, Bassett, Potter, and Ferguson working under Archeologist Reaves began work at the Par Force Great House. A survey point was established southwest of the Great House and a detailed map of the western side of the Great House was prepared. Elevations were established in relation to a datum 1.46 meters above ground level on the southwest corner of the building. A one meter grid was established parallel to the west wall of the Great House. ONOE point on the grid was one meter south from

the southwest corner of the Great House. Five one meter units were selected in this grid. Each unit is designated by the coordinates of the southeast corner. Selected for excavation were 0N0E, 0N3.25E, 4N0E, 2N3E, and 4N4E. The latter two were in the basement of the Great House.

0N0E revealed a sidewalk or brick-paved area that appears to go in front of the doorway to the basement. A 20 x 20 cm extension into 1N0E showed that the foundation for the building did not extend to bedrock. 4N0E along the west wall near the foot of the southern stairway also showed that there was no footing or foundation for the west wall of the building (Figure 3). 0E3.25N was above a terrace wall on the south side of the building. It showed a relatively loose fill, at least two episodes of rebuilding and at least two occupation levels below the present surface. Numerous artifacts were found in these deposits. The excavation reached a point that appeared to be footing wall, but was discontinued without reaching bedrock because of lack of time. This unit should be very close to the interface between what is interpreted as eighteenth and nineteenth century construction. Inside the basement 2N3E was on the west side of the interior wall interpreted to probably represent the eighteenth century

outer wall. It indicated that the bedrock was only a few inches below the present surface. The interior wall is founded on bedrock. Unit 4N4E is along an east-west running wall that intersects with the wall described 2N3E. This unit would be on the east side of that wall if it were the outer or west wall of the eighteenth century building. Support for this hypothesis is the presence of a ca. 6 cm thick floor of very white lime (Figure 4). This floor is overlain with a great deal of charcoal which may be an indication that there was a fire in the building at some point. Since it did not occur in the excavation unit in the room on the other side of the wall, the floor is interpreted as being inside of the eighteenth century building.

Most of the cracking that has occurred is at the junction of the inner wall, interpreted as the outer wall of the eighteenth century structure, and walls to the west of it, interpreted as the nineteenth century addition. Further supporting this interpretation is the observation, beneath the foyer room inside the present front door, of the foundation of an earlier and smaller porch extending out from the same interior wall line that we interpreted as the outer west wall of the eighteenth century building.

Seven scuppers were mapped in along the retaining wall that is west of the Great House. Other scuppers not mapped were in an overgrown area to the south of the Great House (there are probably 3 more). These scuppers provided drainage for the yard area west of the Great House. Over the years they have clogged with vegetation and debris, collapsed and otherwise become disrepaired. This is one of the primary causes of water accumulation in the area west of the Great House. Elevation data indicates that there is generally a 3-7 cm fall between the datum on the southwest corner of the Great House and that taken at each of the scuppers. This indicates a grade of approximately 1-2 cm per meter toward the scuppers.

On the north end of the building is an area identified on the site plan for Reef Bay as a cistern enclosed by a dry wall. While no excavations were performed in the area, we believe that this area is misidentified. There is no evidence for a cistern here. The cistern is under the porch to the south of this feature.

There is evidence of a stairway leading up from the west side and there is evidence for a semicircular finished wall as evidenced in the southwest exposure of this feature (Figure 5). It would appear to be some sort of

portico or patio attached to the north end of the building. It should be excavated to determine its function, shape, finish, etc., before attempts are made to reconstruct or stabilize it.

Excavations were left open at the Historic Architecture Divisions request to accommodate their assessment of the structural solutions to the foundation problems identified.

### Conclusions

There appears to have been two episodes of building in the Par Force Great House. One on solid foundation and one on fill. The one on solid foundation is interpreted at this point, without benefit of artifact analysis, as eighteenth century and the other as nineteenth century.

There is a great deal of debris in the basement of the Great House which is made up of roof collapse, floor deposits, other structural elements, hardware, and other materials. All of these constitute archeological deposits of potential value. None should be removed without archeological clearance and appropriate recording and controls.

Part of the problem with drainage is related to a very small fall toward the scuppers and the breakdown and/or plugging of the scuppers by debris. The grade should be reestablished archeologically and the scuppers restored and maintained. In reestablishing grade, a secondary serendipitous effect will be the recording of activity areas that may contribute to understanding eighteenth and nineteenth century colonial behavior.

Additional archeological investigations are needed to establish the form and function of several observable features now in ruins such as the portico or patio on the north side of the building and the ruin of the portico or porch beneath the foyer on the west side of the eighteenth century building. These investigations should be addressed in the compliance and contracting documents prepared for the Par Force Great House stabilization/restoration work.

FIGURE 1. Par Force Great House from survey station 1 showing excavation area along west wall.

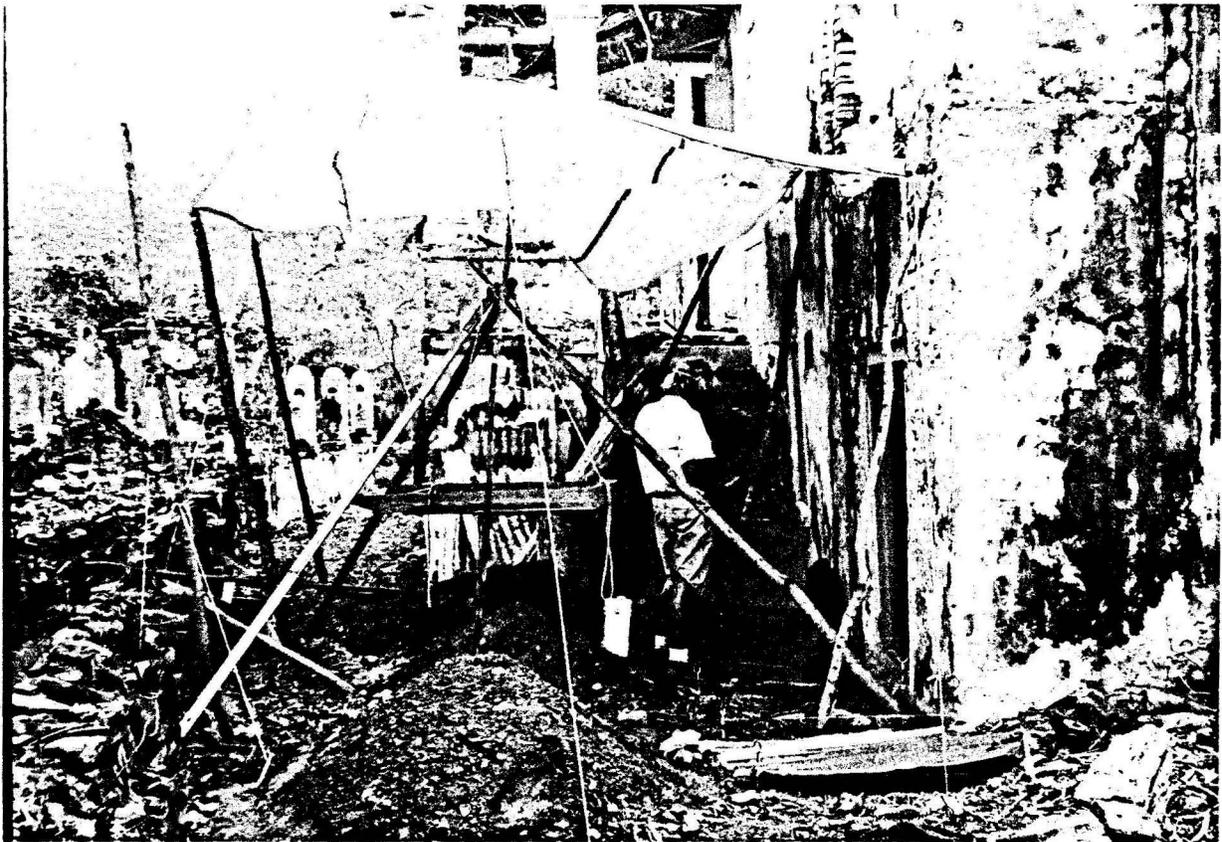


FIGURE 2. Par Force Great House interior basement room showing collapsed roof material and other debris that make up the archeological deposit.



FIGURE 3. Par Force Great House west wall Unit 4NOE east profile showing a white mortar line marking the bottom of the wall. Note there is no foundation and the bottom of the wall is about 2-3 inches below the top of the unit.

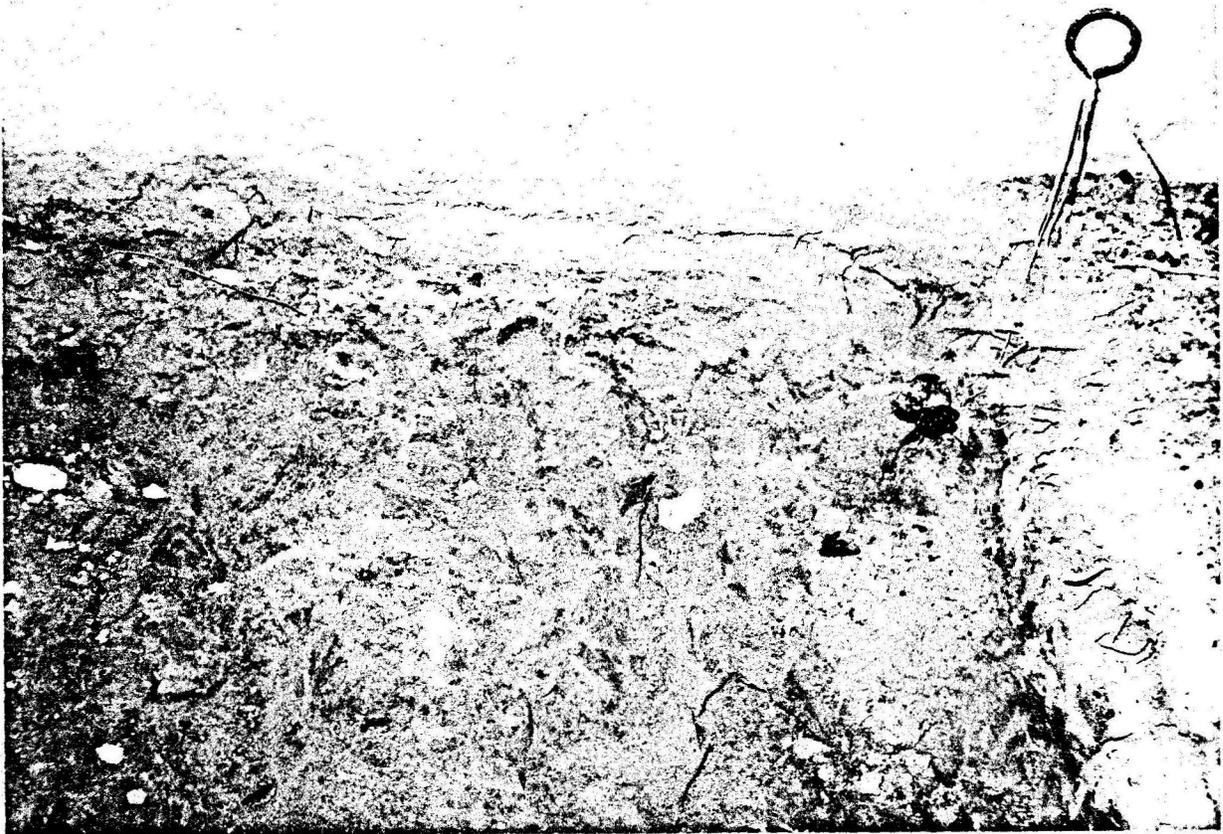


FIGURE 4. Par Force Great House interior room east of the wall interpreted as being the west wall of the 18th Century structure. Note the ca. 6 cm thick lime floor.

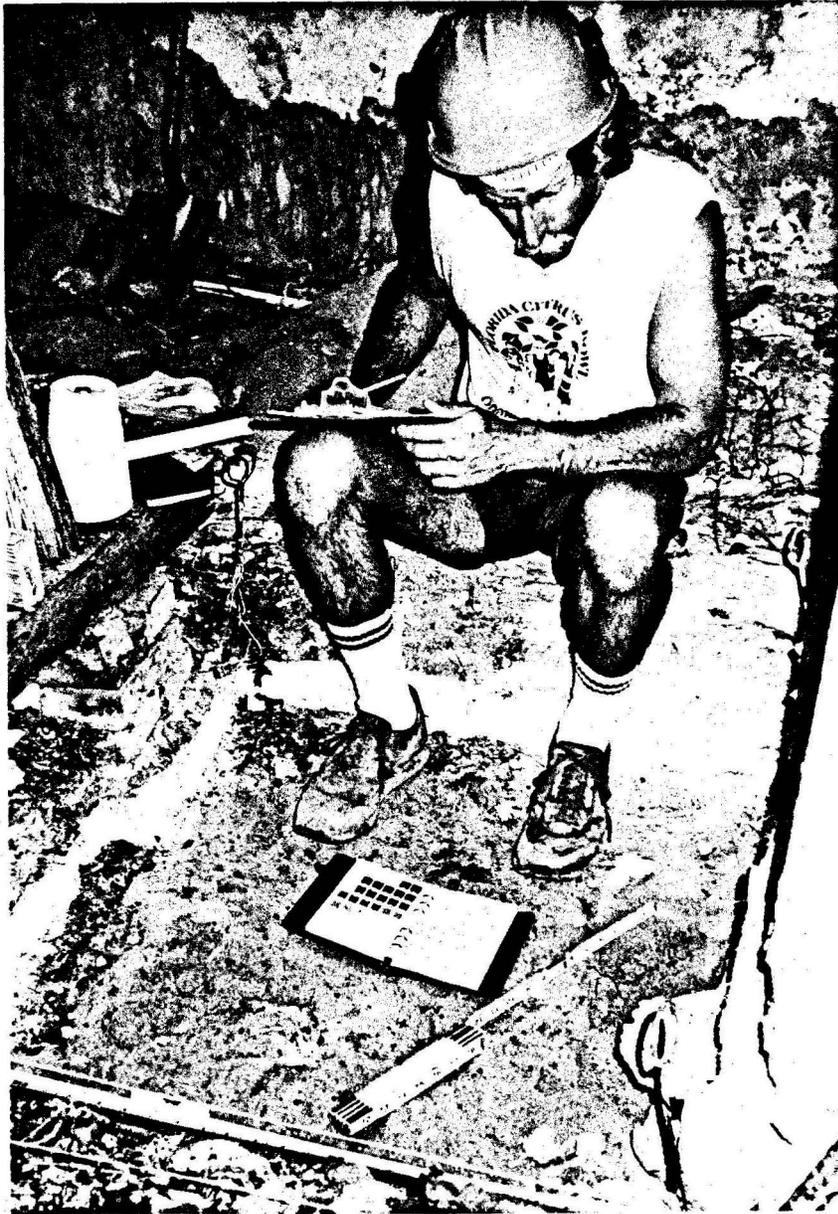


FIGURE 5. Par Force Great House showing the southwest corner of a feature on the north wall previously identified as a cistern, but believed to be a portico or patio. Note the finished curved wall near the center of the picture.

